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## **Adapting the formality level of the language in user interface localization**

### **ABSTRACT**

Different languages utilize different levels of formality when the language is used to address another person. When software applications are customized to a specific country or region, e.g., by localizing the user interfaces to use the language(s) of that country or region, static translation can result in use of formal linguistic features different from that expected by the users. This disclosure describes incorporation of local languages in the application user interfaces with contextually appropriate levels of formality.

### **KEYWORDS**

- Localization
- User Interface
- Translation
- Internationalization
- Formality

### **BACKGROUND**

Applications that are deployed internationally, e.g., applications that were originally developed in English and later deployed in non-English-speaking countries and regions, often need to be customized to offer user interfaces in the local languages of those countries and regions. This is achieved via localization that translates the original English used in the application user interfaces to the local languages. Many languages, such as German, French, Russian, Japanese, etc., address different persons with different levels of formality, e.g., based on the level of politeness appropriate for the interaction. The level of formality used by the user interfaces of an application is reflective of the relationship between the application provider and

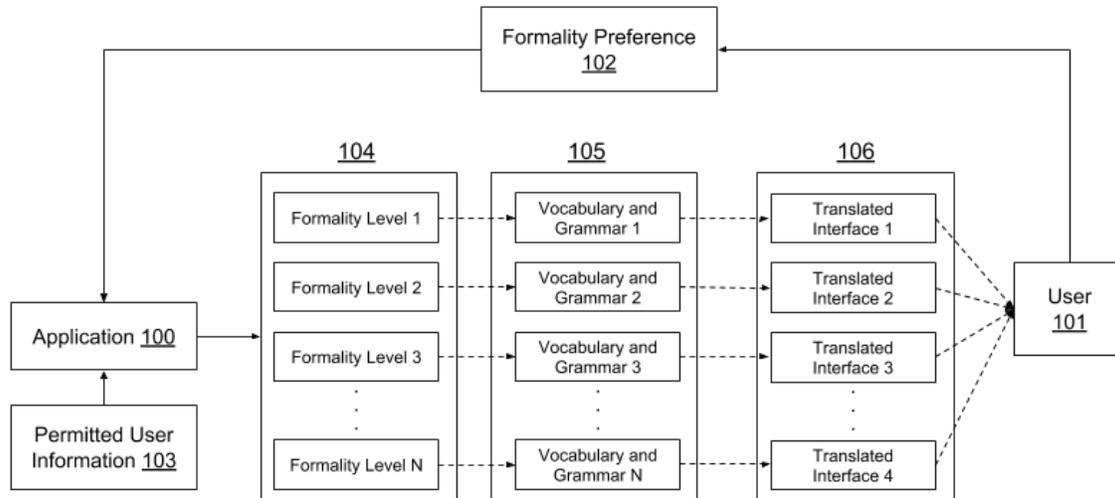
the user. Static localization to non-English languages results in a fixed level of formality for all situations and users. However, for applications with a large and diverse audience, the level of formality appropriate for different types of users can be different.

### DESCRIPTION

This disclosure describes techniques to customize the level of linguistic formality used in the user interfaces of an application in languages that utilize different formality levels. Formality levels can be configured as variants of the language.

User-permitted contextual factors and user data (e.g., demographics) may be used to determine the appropriate formality level for a user or group of users. For users that do not provide permission to access such information, a default level of formality may be used.

For users that provide permission, the formality level of the user interface can be customized based on such information. For example, user interfaces in German are designed to use formal pronouns and vocabulary when addressing older users and informal language when communicating with younger users. Further, users are provided with options to indicate preferences for user interface. For example, for users that indicate a preference for formality or that indicate a desire for privacy, user interfaces are designed to be restrained and non-invasive.



**Fig. 1: Selecting appropriate linguistic formality for application user interfaces**

Fig. 1 illustrates an example process flow of the techniques of this disclosure. An application (100) that offers user interaction with a user (101) in a language that has different levels of formality. An appropriate level of formality (104) is chosen from the various levels available for the language of the user. Next, vocabulary and grammar (105) is selected to match the level of formality. The selected vocabulary and grammar is applied to translate and present (106) user interfaces of the application in the local language of the user. For example, the user interface may be translated from English into German in a way that addresses the user in an informal way, e.g., addressing the user with the informal pronoun “du” instead of the formal pronoun “Sie.”

Further to the description above, the user is provided with options specify the level of formality with which he or she desires to be addressed by specifying a preference via a corresponding setting (102) within the application. In addition, upon user consent, other types of information available about the user (103), such as demographics, privacy preferences, etc. may be utilized.

The techniques of this disclosure can be implemented as part of an operating system, a software application, or both to customize user interfaces to use appropriate levels of formality. Contextual adaptation of the UI is performed when users configure the OS or application to customize formality level of the user interface.

In situations in which certain implementations discussed herein may collect or use personal information about users (e.g., user data, information about a user's social network, user's location and time at the location, user's biometric information, user's activities and demographic information), users are provided with one or more opportunities to control whether information is collected, whether the personal information is stored, whether the personal information is used, and how the information is collected about the user, stored and used. That is, the systems and methods discussed herein collect, store and/or use user personal information specifically upon receiving explicit authorization from the relevant users to do so.

For example, a user is provided with control over whether programs or features collect user information about that particular user or other users relevant to the program or feature. Each user for which personal information is to be collected is presented with one or more options to allow control over the information collection relevant to that user, to provide permission or authorization as to whether the information is collected and as to which portions of the information are to be collected. For example, users can be provided with one or more such control options over a communication network. In addition, certain data may be treated in one or more ways before it is stored or used so that personally identifiable information is removed. As one example, a user's identity may be treated so that no personally identifiable information can be determined. As another example, a user's geographic location may be generalized to a larger region so that the user's particular location cannot be determined.

## CONCLUSION

When applications are customized to a specific country or region by localizing their user interfaces to use the language(s) of that country or region, static translation can result in use of formal linguistic features different than that expected by the users. This disclosure describes the incorporation of local language with appropriate levels of formality in application user interfaces.